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REMARKS

Reconsideration of the Office Action is respectfully requested.

As required in the Office Action, page 5 of the specification has been amended to include a reference to reference numeral 81.

The indication of allowable subject matter in claims 16 to 20, and 25 is noted with appreciation.

Claims 1 to 3, 5 to 15, 17 to 22 and 26 to 28 are now in the application.

The present invention provides a method and apparatus for testing packages with brazed leads non-destructively (spec., page 1, lines 16, 17 et al).

In destructive testing, each lead tested is pulled or pushed to the point of breaking. Hence, each package tested is rendered useless. In a prior art method, such testing was used on a sample of packages in a given lot, and if a certain number of packages tested unsatisfactory, the entire lot was discarded.

In the present invention, non-destructive testing is used. Thus, only packages including those leads which break upon application of a given force are discarded. Since non-destructive testing is used, every package in the lot can be tested and only those which are defective are discarded, while the rest of the lot is saved. Hence, the non-destructive testing of the present invention saves packages and prevents waste and the resulting delays included in having to order new lots of packages.

The claims stand rejected primarily over Salatino Patent No. 5,085,084 in view of Ball Patent No. 6,230,569 under 35 U.S.C 103. The rejections are respectfully traversed.

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The Salatino patent is directed to a system which uses fluid pressure for testing wire bonded leads. On the other hand, the present invention is directed to testing brazed leads. Brazed leads are normally much stiffer than wire bonded leads, and thus in the present invention a mechanical force, which is better adapted for stiffer leads is used. The claims in the application have herein been amended herein to recite that brazed leads are tested by the application of a mechanical force.

Moreover, Salatino, at col. 3, lines 35 to 45 describes two variations of his system, destructive testing and non-destructive testing. In the destructive testing, the pressure of a fluid jet is progressively increased until one or more leads breaks its bond, moves, and contacts conductive plate 46. In non-destructive testing, the same pressure is applied to each lead, which is sufficient to move an improperly bonded lead into contact with plate 46, but which is not sufficient to move a properly bonded lead.

In the present invention, it is not necessary to provide a means to determine whether or not a lead has moved. Thus, in the preset method, the resistance of the lead to the applied force is simply measured, for example by a force gauge. As stated on page 7, third paragraph of the specification:

“The difference in resistance between a lead which is well adhered to the package and one which is poorly adhered may be substantial. Thus, with one type of package tested, a well-adhered lead registered a resistance of one or two pounds, while a poorly adhered lead registered a resistance of only a few ounces.”

Measuring the resistance of the lead to the applied force as with a force gauge, is much more convenient than measuring a movement of the lead. Thus, in the case of the present invention, the mechanical means for applying the force is easily connected to a force gauge,

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while in the case of measuring movement, special mechanical structures having predetermined tolerances need to be provided. Thus, the system of the present invention is more conveniently designed and manufactured.

As mentioned in the Office Action, Salatino includes a statement that the applied pressure, after the breaking of the bond, is an indication of the strength of the bond (col. 3, line 40). However, this statement is made in relation to the destructive testing embodiment where the pressure is continuously ramped up until the bond breaks. In Salatino's non-destructive testing embodiment, the same pressure is applied to each lead. Thus there is no teaching in Salatino to use a measurement of the resistance of the lead to the applied force as a criteria for accepting or rejecting a package in non-destructive testing.

It is thus submitted that the references do not render the claimed subject matter obvious, and that method claims 1 to 3 and 5 to 7, as well as apparatus claims 22, 24 and 28 are patentable.

Turning to the apparatus claims which recite the unique structure of the apparatus of the invention, it is submitted that independent claim 8 and the claims dependent thereon are allowable.

Thus, claim 8 requires first and second holding members for holding both the package and a portion of at least one lead therebetween. This limitation requires that both the package and lead be held between the same two members. This is not the case in Salatino, where a lead is held between members 42 and 30, but where the package 10 is held by a different member 44. Moreover, it would not have been obvious to modify Salatino to achieve this structure because Salatino uses fluid emitting cone 40 on the other side of package 10 and thus couldn't use the

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same member as holds a lead (e.g., member 30).

Hence, it is respectfully submitted that claim 8 and the claims dependent thereon are allowable.

Claims 16 to 20 and 25 were objected to, but were indicated to contain allowable subject matter. Claim 16 has now been re-written as new independent claim 26 while claim 25 has been re-written as new independent claim 27. These claims are now in allowable form and it is respectfully requested that these claims be allowed.

As discussed above, it is believed that all claims in the application are now allowable. Hence a Notice of Allowance is respectfully solicited.

If the Examiner feels that a telephone conversation would advance the prosecution of the application he/she is respectfully urged to contact the undersigned at the telephone number below.

Respectfully submitted,



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